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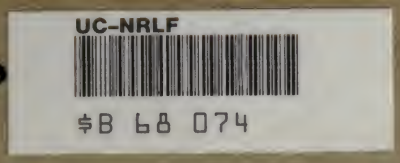

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WHAT IS INVOLVED IN VOCATIONAL EDUCATION

AN ADDRESS

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FOREWORD

In order that his point of view may be clearly known and his intense belief in vocational education of the most practical kind established in advance, the author craves a word of introduction to say that he writes from the standpoint of a farmer and a teacher interested above all else in an improved agriculture and an enriched country life.

There is no kind of farm work in forest, field, or ditch that he has not done; not once but many times, day after day, and year after year, and with all kinds of people; not only as a boy but for ten years as a man after graduation from college. He therefore feels that he knows the point of view of the man who works with his hands, and something of his need for training, both mentally and manually.

It is now forty years since his experience in vocational education began in the oldest agricultural college in America—an institution having no connection with any other form of education. After ten years of practical farming, he was called to teach in his Alma Mater, and for the last twenty years he has been at the head of an agricultural college and experiment station organized as integral parts of one of the larger state universities.

The following treatment of the general subject of vocational education is therefore the result of convictions that have formed themselves during these many years of experience with both extremes of the problem as applied to agriculture, with such observations in collateral fields as occasion has made possible.

Archive

WHAT IS INVOLVED IN VOCATIONAL EDUCATION[1]

Now that we have outgrown the apprentice system, the question of vocational preparation is fairly up. Shall it be ignored, or shall it be undertaken by the schools, which, by custom and by law, have possession of the children? Upon this question different types of people have taken three diverse positions:

1. An old-time extreme which held that the sole purpose of the public schools was to give a general education without regard to vocation, and that specialized instruction should not be undertaken below the college, a view that left the masses with no training for occupation and therefore with less ability and often with less inclination for lives of usefulness than characterized the preceding generations before the introduction of compulsory universal education. This extreme view of the function of education is fortunately past and for present purposes may be disregarded.

2. An opposite extreme, also of long standing, chiefly interested in "business," holding that the vast majority of the people, necessarily destined for common toil, are certain to be made unhappy by too much education, and that the best way of insuring that the hewers of wood and drawers of water will be efficient and at the same time "contented with their lot" is to establish for the masses a variety of distinctly technical schools whose aim shall be, above all other considerations, to turn out efficient workmen. Unfortunately, this extreme is not dead, like its contemporary, but seems endowed with perennial life.

3. A modern middle ground taken by the mass of educators, farmers, bankers, labor unions, and others interested mainly in people and in ultimate progress rather than in immediate results. The advocates of this position hold that vocational and non-vocational education are equally important, whether we regard the interests of the individual, of the occupation, or of the public, and that in order to secure the highest development of individuals, of vocations, and of society, it is necessary that every student be educated both vocationally and non-vocationally; that the technical and the non-technical instruction should be carried on side by side, particularly in the secondary school; and that children of all classes should be held together and otherwise associated as intimately as possible during the period of preparation

[1]Delivered by E. Davenport before the Business Section of the State Teachers' Association, Springfield, Illinois, December 30, 1914.

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for different occupations and more or less conflicting careers. Because of all these considerations it is held that the practical procedure is to expand the public schools by the introduction of vocational courses, thereby insuring the form of education best fitted for a self-governing community undergoing rapid development.

Plan Proposed by Illinois Educational Commission

In general line with this modern spirit of education for a democracy, the Illinois Educational Commission some four years ago reported and recommended a definite plan of procedure for the public secondary schools of the state. As I know no better statement of the so-called unit system, I quote from the report[1] certain fundamental propositions as follows:

"I. That the high school completes the formal education for most of its students, and this fact rather than the preparation for college should dominate its policy.

"II. That the high school curriculum should, therefore, distinctly recognize the vocational needs of the pupil, defining vocation broadly enough to cover all the useful activities, ranging from industry for the masses to literature, business and art for the few.

"III. That at least one-fourth of the student's time in high school should be devoted to this vocational work, and three-fourths to non-vocational, upon the ground that the student, in order to make a useful member of society, should, for a portion of his time each day after reaching the high school age, become possessed of a deep sense of vocational consciousness demanding special training looking to his own activities, but that at the same time, in order to be most effective and rational, he should also devote the major portion of his time to what other men have thought and said and done, or are preparing to do, and to the facts of nature.

"IV. That the instruction in vocational courses of high schools should be as useful for practical purposes as is that in the same subjects in schools devoted exclusively to technical training. In no other way can the higher phases of public education hold their own against the competition of the trade school and prevent its supplanting to an undue extent a broader system for the education of the young.

"V. That therefore the typical high school should introduce into its curriculum at the present time at least six vocational courses corresponding to the six broad avenues leading into the chief activities of civilized man, namely:

"1. A course leading to the speaking and writing professions with language, literature and history as its main subjects.

[1]Report of the Illinois Educational Commission to the General Assembly of 1911, pp. 49-51.

"2. A course leading to the scientific professions, especially medicine and surgery, and devoting its chief attention to biology, physics and chemistry, studies dealing with life and the conditions of life.

"3. A course leading to the profession of farming with special reference to the domesticated animals and plants, and to the soil as the sustainer of life, supported by the physical sciences and by the principles of accounting.

"4. A course preparing for useful and artistic construction in the building trades and in most lines of manufacture. Here, manual training, mathematics, physics and art should hold the leading place.

"5. A course leading to the callings of the business world, with commercial geography, economics, industrial history, commercial arithmetic, commercial law, book-keeping, stenography and typewriting as its most prominent features.

"6. A course dealing with the application of science and of art to the affairs of the well-ordered home. Here sewing, cooking, food values, marketing, serving, nursing, sanitation, textiles, home decoration and the laws of physical, moral and mental development in childhood are the special studies.

"VI. That the nature study work of the grades should lead up naturally to the high school, and to this end should be so conducted as to follow the evolution of the child and develop gradually from the undifferentiated study of the natural environment in the lower grades to a differentiation in the upper so clear as to establish in the mind of the pupil of the grammar grades a conception of the field of the various natural sciences and a well-developed vocational consciousness, the latter having its inception with the appearance of the economic instinct in the upper grades. By this means the child is prepared for an intelligent choice of his vocational course, and in this way can be checked, to some extent at least, the outrush from the schools following the lure of vocation, and conscious only of the desire to do practical things.

"VII. That schools be advised to ascertain whether and to what extent pupils are engaged in duties outside of school, and when it shall appear that such duties are definite and regular, then their value should be assessed and proper credit given the student on the progress of his course, particularly for work done in direct line with the vocational courses of the high school, but no credit should be given for irregular and indefinite outside activities involving little or no responsibility, and developing neither knowledge, skill nor stability of purpose.

"Vocational courses should be organized and taught strictly from the vocational point of view, with the distinct purpose of giving the student the disposition and something of the ability to take at once

a definite place in organized society, and to become a useful member of his community.

"To this end the student, upon entering high school, should select one of these courses upon the assumption that the preliminary work in the grades has been successful in helping him to choose, broadly at least, the general nature of his vocation.

"The choice once made should be definite and final, unless the student with his developing faculties discovers that he has made a mistake, in which case he should be permitted to change his election with whatever loss of credit is necessarily involved, all upon the principle that one of the chief functions of the school is to enable the individual to find himself and to identify and come into intimate relations with his life work before he tries his forces in competition with the business world. The evidence at hand all points to the belief that this course of procedure will sensibly reduce the stream of incompetents going from our schools into the ranks of unskilled labor and largely on into the stage of discontent and the army of the unemployed.

"The student, having selected his vocational course, should devote to it one-fourth of his time and energy; that is to say, of the four high school studies, one should be vocational. The rest of the time should be as faithfully devoted to language, literature, science, history, economics, art, mathematics, and such other non-vocational subjects as are needed for the adequate mastery of the mother tongue, for intelligent citizenship, for a knowledge of the world, and the due appreciation of life. It will be noted in this connection that what is vocational for one group of students becomes non-vocational for another with a different purpose, and one is as important as the other in the making of a citizen.

"It is unnecessary to remark that the vocational courses should be taught by one who is familiar with the vocation as well as the subject-matter and the method of instruction; in other words, by a special teacher. That the teacher should know his subject is a fundamental principle, but it is even more vital in vocational than it is in non-vocational instruction."

That this report of the Commission not only announced an educational policy but reflected the public mind is shown by the fact that without special legislation or outside support the plan is being rapidly carried out. Home economics is now taught in 137 of the high schools of the state and agriculture in more than 50, while business courses are developing freely and manual training is coming to be frankly understood as a preparation for craftsmanship as well as a special form of training for the hand.

Besides what is being done in the secondary schools, the Cook-county plan shows how rapidly and how sanely these same subjects

are being developed in the grades and the country schools,—all of which is strongly supported by the newly devised plans for junior extension work in agriculture and home economics by the federal Department of Agriculture in cooperation with the Agricultural College of the State University.

Moreover, short courses in agriculture and home economics are coming in as a distinctive feature of the community school, and their numbers are increasing and their duration lengthening as rapidly as instructors can be found, while other special needs are being met wherever and whenever the public is willing to pay for them.

There remains only to develop these technical courses into greater usefulness, to establish adequate instruction in the manufacturing industries and in business, to set the science courses in order for technical needs, and to adapt still better our literary work to non-technical purposes,—all of which is going forward by leaps and bounds under an educational impulse as new as it is unique and rational, showing clearly that the public school of the future is not to be judged by the products of the schools of the last generation.

When we remember the history of education and of industry, the marvel is that the public schools with all their shortcomings have done so well in an educational effort positively new in the world's history. The amazing wonder is that they have caught the vision so soon and that they have made so good a beginning, not only in vocational training, but in the development of a comprehensive system of education specific enough to meet the needs of efficiency, and flexible enough for easy adaptation to the rapidly changing conditions of an ever advancing people.

By all accounts the people generally are beginning to realize what universal education in a democracy really means; to appreciate what is actually involved in educating all the children of all the people for all the duties of a highly developed and self-directing civilization; and to understand that there is no short cut to success in our problem. This is a mighty advance over anything that has gone before.

A New System Proposed

In the midst of this development there comes from the Commercial Club of our chief industrial and trade center a definite proposition to establish a separate system of vocational schools, supported by state and local taxation and managed by boards of control having but nominal connection with other public-school activities. This is the so-called dual system based upon the theory that vocational education, to be effective, must be administered in special schools and by special teachers. While it opposes no development which the existing public schools may attain, the writer cannot look upon the plan as other than a revival of the policy to provide for the masses a

special kind of training with limited cultural opportunities, the product of which would inevitably, if not designedly, be a superior kind of apprentice.

Points Covered by the Proposed Law for Establishing a System of Vocational Schools for Illinois

The provisions of the latest accessible draft[1] of the Cooley bill may be outlined substantially as follows:

1. A state Commission of Vocational Education shall be created having no connection with other educational activities of the state except that the State Superintendent of Public Instruction shall be an ex-officio member.

2. In all cities or villages of the state desirous of enjoying the benefits of the act, there shall be a local Board of Vocational Education having no connection with the educational system of the city or village except that the Superintendent of Schools of such city or village shall be an ex-officio member.

3. In rural districts there shall be a township Board of Vocational Education having no connection with any other educational system except that the County Superintendent of Schools shall be an ex-officio member.

4. The local Board of Vocational Education, whether in the city, village, or township, shall have power to establish any one or all of the following vocational schools, either separate or in any desired combination:

> "a. Vocational continuation day schools for youth of both sexes between the ages of fourteen and eighteen years who are employed or are not pupils in other schools,—at which vocational schools such instruction shall be given as will render more efficient the practical work of the factory, shop, store, office or farm. Attendance at such schools shall be compulsory upon all such youth for 240 hours in each year.
>
> "b. Vocational evening schools for pupils over eighteen years of age who are employed, at which schools such instruction shall be given as will supplement and rationalize the practical experiences of the factory, shop, store, office or farm. Attendance at such schools shall be voluntary.
>
> "c. Vocational continuation day schools for apprentices, clerks and servants, attendance at which shall be compulsory upon all youth who are bound as apprentices, clerks or servants under the

[1]Being unable to secure a recent draft of the new proposal, I have abstracted to the best of my ability from the printed plan of two years ago. This abstract has been submitted to the promoters for approval, or for modification until it should fairly represent the new proposition. I am advised that it does not completely represent their latest plans, yet as my request for alteration was not complied with, I have no recourse except to use the latest material which has been made public,—the Cooley bill of 1912-13.

statute in such case made and provided. At these schools instruction shall be given with a view to teaching the entire trade or vocation at which such apprentices, clerks, or servants are employed, for not less than six hours per week, during the entire term of such apprenticeship.

"d. Part-time schools for youth between fourteen and eighteen years, the pupils of which will spend alternate weeks in shop, factory, store or office or other place of employment and at the schools at which instruction shall be given with a view to supplementing and rendering effective the work of the pupils in their respective employments. Teachers at these schools will be required to supplement the school work by giving practical aid and advice to the pupils and their employers at the respective places of employment of such pupils.

"e. Vocational day schools for the industrial, commercial or agricultural instruction and for the instruction in domestic service of youth between the ages of fourteen and sixteen years. At these schools instruction shall be given with a view to the vocational preparation of the youth of both sexes, who expect to commence industrial, commercial, agricultural or domestic service at the age of sixteen years, and shall include instruction to girls in women's trades, commerce and the household arts, and to boys in agricultural, commercial, industrial and mechanical subjects. Youth employed upon farms shall not be required to attend such schools, except during the months of November, December, January, February and March, but the technical or special teachers of subjects pertaining to agriculture may be employed for ten months in each year, of which period, five months service shall be in the schools and five months service on the farms in the municipality supporting the school, giving lectures and demonstrations and promoting such other educational measures as the board shall determine to be for the benefit of the agricultural interests of the community.

"f. Schools which shall provide in one institution for the instruction required in any two or more of the above mentioned types of schools."

5. The Board of Vocational Education shall have power to buy or lease sites for buildings and grounds with the concurrence of the city council or commissioners in the case of cities and villages, and without concurrence in the case of townships.

6. In all cases the Board shall have power to erect, purchase, or rent buildings or rooms, employ teachers, provide equipment, expel pupils, and perform any act necessary to the successful conduct of the schools it has established.

7. In the case of city or village organizations, the Board of Vocational Education shall certify to the city government the amount of money necessary for the conduct of the vocational schools it has established, after which the city council or the commissioners shall have power to levy a tax not to exceed an upper limit (unspecified in the

bill), which tax shall be in addition to all other taxes which such city or village is now or may be hereafter authorized to levy.

8. In the case of township organization, the Board of Vocational Education shall have power itself to levy taxes not to exceed a certain upper limit (unspecified in the bill), the proceeds also to constitute a "Vocational Educational Fund" in addition to all other educational taxes.

9. Any city, village, or township establishing a system of vocational schools under the proposed act shall be entitled to receive from the state in further "aid of such school or schools an amount equal to the annual sum raised by taxation by such city, village, or township for the support of such school or schools."

Whatever is true as to details and revisions, the above outline exhibits the new system as presented two years ago for adoption in this state, and it may therefore be fairly accepted as representing the essentials of the plan as it lies in the minds of its promoters. It is the clear intent of the act to establish a publicly supported, self-governing, and independent system of vocational education having no connection with other forms of education except through the ex-officio membership of school superintendents, state, city, or county. It is to be noted, too, that the obligation of the state is limited only by the rate of taxation permitted to the community and the number of communities that choose to avail themselves of the provisions of the act.

The proposed plan to establish a new and separate system of vocational schools is a departure, sprung upon us in the very midst of an exceedingly rapid development of vocational education in the public schools, whose chief need now is money and qualified teachers. My contention is that the good work already accomplished is not to be abandoned or nullified and all that has been gained is not to be sacrificed by a confusion of plans and procedures,—certainly not without the most searching inquiry into the consequences of setting up at public expense, and over against the public-school system, a new and separate system of any kind, even so good a thing as vocational schools. We are not to adopt an imported system because it is German without inquiring what it is doing to Germany; nor are we to adopt it because it promises a short cut to industrial efficiency, without inquiring what it will do to *us*.

As every proposition is to be judged by what would happen were it put into operation, I invite the sober consideration of the following five specific questions, viewed from the American standpoint:

I. How would a separate system of vocational schools affect the children?

II. How would a separate system of vocational schools affect the existing public schools?

III. How would a separate system of vocational education affect society?

IV. What would be the financial waste of a multiple system of schools?

V. What has been the experience of the colleges in dealing with the same kind of problem?

I. How Would a Separate System of Vocational Schools Affect the Children?

Under the unit system each vocational group of children is segregated only for technical courses. In all non-vocational studies, except for certain modifications, they receive the same quality of instruction as other groups. In this way all students enjoy identical privileges in non-technical instruction and are thrown for most of the time into intimate association and personal contact with individuals of all other groups, a condition which not only vastly increases their information by the indirect processes of filtration, but extends their acquaintance and broadens their sympathies each with the other, an important consideration when it is remembered that their after-lives will be widely separated.

The dual system, on the other hand, would necessitate complete segregation, which would deprive the student of this advantage, as it would also of the highest grade of instruction in non-technical or humanizing subjects, for in actual practice it is hardly possible for the vocational school to provide as good a grade of instruction or as ample library facilities in literature, for example, as could be afforded by the cosmopolitan school. This is not only because of the additional expense, but also because the best teachers avoid schools of narrow purpose and restricted associations. In every way the individual student in the separated school is bound to suffer loss, both in his non-technical education and in his knowledge of and sympathy with other occupations and the people who follow them, but with whom he must afterward live and do business with comfort if society is to be at peace with itself.

II. How Would a Separate System of Vocational Schools Affect the Existing Public Schools?

There are but two possible objects in segregating students along vocational lines: one is to secure competent instruction; the other is to create and maintain an "atmosphere" favorable to each particular form of vocational activity. To establish a system of separate vocational schools, therefore, means something more than the division of instruction into two classes,—the academic and the vocational. It means the development of a great variety of vocational schools, each designed and operated for a special purpose.

The report of the Educational Commission outlined six vocational groups into which the normal student body of the public high school

could sort itself, and in general these groups would care for most situations without segregated schools. Now, if these six groups cannot profitably live together, upon the same campus, under the same body of teachers, and under the same board of control, then to be effective they must break up into at least *six vocational schools,* one for each, in order to create and preserve the special "atmosphere" deemed so necessary to success. There is nothing more in common between the five so-called occupational groups,—farming, manufacturing, science, business, home economics,—than there is between any one of them and the sixth, or the literary group; and if they cannot all get on together in the same school, then the five will break apart after secession from the sixth. By all accounts, a vocational-school system means one school for each vocation in every community or else a restriction of opportunity, and the so-called dual system is dual only in administration. It is, and is bound to be, *multiple* so far as the schools and the students are concerned.

Now the public high school is a community proposition. Consider for a moment the effect on such a high school when this cleavage begins. The prospective farmers will go over to a farm school. Those who are preparing for the building trades or for manufacturing will move out into a separate institution that, whatever it is, we will for convenience call a trade school. Those who are training for business will go into a commercial school. Those who are looking toward the scientific professions will need a school of their own. And, as none of these schools is fitted to train in home economics, there will need to be also a school for housekeepers. Yet in all these schools there will be serious trouble in securing a sufficient amount of suitable work outside the particular vocation for which the school is designed.

Here are five separate schools drawn from the original community high school, and who shall say that any two of them could by combining gain any advantage which they might not have enjoyed had they staid where they were in the beginning? What now is left in the high school after the exodus? Only those inclined to the literary professions, some girls who did not care to enter a professional housekeeping school, those who had no choice, and those who preferred to dodge the issue as long as possible. Fine material, this, with which to conduct the remnant of the public school, either as a technical school for literary purposes or as a school for culture, whatever that may mean as a distinct educational aim!

There is still another important consideration. With each group of students thus drawn away from the public school goes a corresponding group of parents and taxpayers whose interests naturally follow the children to one or more of the new schools. How long under such conditions will these citizens pay taxes freely for the public high school, which has then become a kind of hybrid between a cheap

technical-literary school and a *pro bono publico* educational luxury? How long under conditions such as these can the public high school maintain itself in the average community or even in an exceptional community that has, and will always have, about all it can do to support one good school?

One of two things would happen if this plan were ever put into actual operation under public funds. Either it would break down or it would reduce the community high school, by withdrawal of students and support, to an academy for the well-to-do in preparation for the arts and science courses in college.

III. How Would a Separate System of Vocational Schools Affect Society?

Early cleavage along vocational lines means inevitable stratification of society of the most uncompromising kind because it is occupational and because it is begun in childhood and fortified by education. Segregation of children along vocational lines for the purpose of education means in the last analysis a stratification based upon money or other inherited advantage instead of upon native ability and individual initiative, because some occupations lead naturally to the accumulation of wealth, while with others it is impossible.

Such a stratification needs an emperor to control it. Not only is it incompatible with a self-governing people, but no democracy can endure under the inevitable strain. Most of our troubles are social and economic, and to base our education upon occupation without fostering or even permitting the closest personal association is to sow among our children the seeds of our most dangerous dissentions and to cultivate them day after day in the schoolroom. To do this and then to expect a self-governing people to live together afterward in peace and harmony is to sow the winds without being ready to reap the whirlwinds. When we follow the lead of other nations in this matter we must be prepared to copy their forms of government and to sacrifice the individual to a fixed scheme of general efficiency as over against personal efficiency and culture. Perhaps that is what we desire and what we need, only we should act advisedly when experimenting with a kind of machinery that works both ways.

IV. What Would be the Financial Waste of a Multiple System of Schools?

Without experience, a direct answer to this question is impossible; but technical training is enormously expensive, and this fact is the chief obstacle to be overcome in its widespread introduction. To establish independent schools along vocational lines would increase the difficulty because of the repeated and otherwise unnecessary duplication of those scientific, literary, and other non-technical studies which

ought to make up a good proportion of the education of a man who is to be trusted with the ballot in a self-governing country.

It would be impossible to devise a more expensive method of vocational training than the multiple system proposed. Only public taxation could support such a scheme, and, for financial reasons if for no other, either it would break down or, if it succeeded, it could be maintained only at the expense of the non-technical education of the children. It is this fact that leads us to assume that the finished product of such schools in actual practice would be at best a superior kind of apprentice.

Perhaps, again, that is what we want. It all depends upon the issue,—whether we have people and progress or whether we have immediate industrial efficiency most in mind,—and the premium we are willing to pay for either.

V. What has Been the Experience of Agricultural and Mechanical Colleges?

Fortunately, we are not without experience in this general field and under thoroughly American conditions. In 1862 Congress provided for a national system of instruction in agriculture and the mechanic arts, either in separate colleges or in connection with existing institutions of learning. It was an experiment with which the established education of that day had little sympathy. In the middle of the last century all education was classical, and the natural sciences were not yet admitted into respectable academic society. With science knocking at closed doors, her poor relations, agriculture and the mechanic arts, would have had short shrift except for the deeds to certain real estate which they carried in their pockets and because of which they were admitted, in certain instances, to spare room in the basements and the attics, with the privilege of gathering such crumbs as fell from the feast of learning.

In some states the "new education" refused to enter the existing institutions upon these terms, and by arguments much the same as we now hear, established colleges of agriculture and mechanic arts on a separate, new, and independent plan. Under the conditions obtaining then, no other way was possible. I was brought up in such a college, and learned to cast aspersions upon the old-time classical and "impractical" form of education, and at the time they were well deserved. Those were days of narrow views of the purposes of education, days when it was held desirable that the masses should remain comparatively ignorant in order to insure contentment. Then followed days of strenuous thinking along new lines and no less strenuous deeds in educational evolution. All honor is due to the separate agricultural colleges, like Michigan and Massachusetts, that blazed

the trails and opened the vistas to a new view of learning and of service and of manhood on the earth in spite of the educational bigotry of the times.

These separate agricultural colleges did their work well,—so well that the universities began to call the outcasts up from the cellars and down from the attics and to give them good seats, not only at the feast, but at the council board; and today, without being invidious, I am bound to maintain that the best agriculture, not only in terms of science but for practical farming purposes, and the best engineering for professional use, is taught, not in the separate college as a half-century ago, but in the great state universities where the subject has been fully accepted and in which the technical teachers are given every aid and every help of the general faculty; where the students who are to be farmers or engineers study under the same conditions and under the same instructors as those who are to be teachers, journalists, and business men; where the students come into contact with the whole range of knowledge and of human interests, and build up personal friendships among men of all professions. Such a body of men is knit together like the souls of David and Jonathan, and therein lies the very heart and spirit of public education in a democracy.

With this experience behind us, what is the use of trying out the problem again in the realm of secondary education? Why travel again in the name of the secondary school the same weary way it took the colleges a half-century to explore only to arrive at a point just over the hill and not so very far after all from that of their own departure? There is no good and sufficient justification for such a procedure. The contest is over. The issue is decided. Henceforth we go on together.

The state university where all interests work together is the model for public education of all grades, and its counterpart is the cosmopolitan high school of the community, a thoroughly American institution where all the children of all the people learn to do all the things and to meet all the duties involved in a highly civilized state.

It is objected that the public-school teachers are neither qualified for nor sympathetic with vocational education. That they are, for the most part, trained for other teaching is true, and the other teaching is still to go on. Additional teachers trained in the vocations must be found, and very largely made, whether we introduce vocational courses or vocational schools. That the sympathies of public-school teachers in general are with vocational education is shown by the fact that no man who has gone out from the University of Illinois to teach agriculture in a high school has ever complained of lack of support on the part of his colleagues. Teachers are better agreed now upon the need of vocational education in our schools than upon almost any other educational subject.

Let the public high school, therefore, do business. Let it put in vocational courses, night courses, part-time courses, short courses,—anything which any considerable group may need. Let it expand to meet all the educational needs of its community; and when the community has done all that it can, let the school be subsidized, not destroyed, by the state and by the nation, for the children, if properly educated, will be citizens of the world and not of a trade.

The Opposite View

Nevertheless, there is a respectable minority that disagrees, some believing that we are not altogether honest in our protestations; some that the plans we advocate are undesirable when applied to the masses; and some that for secondary education they are chimerical and impossible however well they may work in college, believing that whatever we may accomplish in vocational education in the ordinary public schools, children cannot be adequately trained for industrial life in the same school with students and courses devoted at all seriously to "academic" instruction, and that if we attempt it we shall come short of the real needs of a busy and work-a-day world such as ours is bound to be.

Now, the wise advocate does not rest his case upon his own arguments. Before he submits it to the jury he carefully examines the strong points in the opposite side and the weak spots in his own. This issue is soon to go to the people, who are the jury. It will be well, therefore, to regard the case from the point of view of the promoters, at least so far as possible, and afterward to confess certain shortcomings in the public schools not yet remedied and that afford talking points for the dual plan.

Advantages of the Dual System

Every proposition that wins a following must have something to commend it. The dual system is no exception, and the following advantages are conceded without argument:

1. It provides for those who, for one reason or another, have "left school,"—a hitherto neglected class, many of whom are bread-winning children, and most of whom are floating about from job to job, fitted for nothing in particular.

2. It extends the age for compulsory instruction to eighteen for all who are "employed."

3. It provides a means by which youth needing employment may combine formal instruction with shop practice and some degree of earning power.

4. In providing compulsory training for "all youth who are bound as apprentices, clerks, or servants" (see Sec. c), it revives and

improves upon the old apprentice system of bound labor in a way that ought to insure a very high grade of service to the employers. If we still had the apprentice system with us this might all be regarded as a protection to the child; but as the system of bound service has fallen into disuse this must be regarded as an attempt to revive it in the interest of a more reliable source and more skilful grade of child labor,—all of which is of undoubted advantage to "business" and to "the leisure class." The writer may be pardoned if he regards this as a joker in the bill.

5. The finished product would be more immediately useful in business than is likely to be the output from a cosmopolitan school whose chief object is general as well as special efficiency at forty, rather than industrial efficiency at sixteen or eighteen years of age.

6. It would pay a more immediate return on the investment both to business and to the craftsman.

7. It is peculiarly adapted to win support both with business interests, with parents, and with children, because of its practical objects and its early and direct returns.

8. The general proposition is simpler than that of the unit system because it aims at meeting the demands of business rather than the educational needs of all classes of children.

9. It is simpler, too, in that it aims to instruct in a single method of "getting a living" rather than in the complicated question of "how to live."

10. The purpose of a given school being simple and direct, its administration is easier than that of a school whose purposes are as broad as the issues of life.

Weak Points in the Public Schools as Seen Historically and as Judged by Results

Experience and growing needs have brought to light certain omissions and shortcomings in our public-school administration, among which the following are most significant:

1. The public schools were not founded for vocational instruction and they have been too slow in recognizing its need.

2. They have attempted to educate all classes by means of studies and points of view drawn from old-time courses designed for the education of the governing and other privileged classes and having little reference to industrial life or to the personal needs of the vast majority of people.

3. Not finding the education useful, many children have left school and many have continued only to demonstrate afterward their inability and often their unwillingness to pursue the common occupations of man, showing that those who reaped the chief advantage from the public schools were the fortunate ones who continued on to college.

In the opinion of the writer, the present proposal is the best evidence of a weak spot in the public-school system, for the new plan would have had no followers if the public school had done its whole duty as it is now beginning to do it in the form known as the unit system.

Special Difficulties Resting upon the Unit System

The unit system is much more difficult of execution, and therefore of defense, than is a separated system, and for the following reasons:

1. It is more complicated, for it proposes to undertake the whole education of *all* the children.

2. It proposes to build upon the present public-school system because of its wonderful achievements, but in doing so it must endure whatever criticism is due for the mistakes or shortcomings of the whole system during its long and tortuous history.

3. Being on the ground and at work carrying the burden of public education, it shares the common lot of all active agencies of progress in incurring criticism for whatever difficulties arise in actual procedure,—many of which are inherent in the situation whatever the system.

The Two Plans Compared

The shortcomings of the public school in its evolution into a unit system of education for a democracy are of the nature of details, mostly of omission, while the weakness of the so-called dual system is a fundamental error in educational ideals.

The mistakes, the errors of judgment and of execution in the system that has been at work, are growing pains, and, like children's diseases, will pass away and be left behind, but the mistake of the dual plan is rooted in a wrong philosophy of life and its results would not pass away.

The two systems approach vocation and vocational education from different if not from opposite points of view. The one, if allowed to proceed, will ripen into a complete system of adequate education for all people and for all callings; while the other at best would but provide a special training for those who are "bound" to service.

The Lesson of the Hour

The proposition to establish a new system of schools proposes nothing that cannot be as well or better done by existing schools, but it does point out certain imperative lines of procedure:

1. We must find ways of teaching the vocations which will not only train for service but also educate the individual as much as possible and develop the occupation as well,—a vastly more difficult undertaking than simply training for employment.

2. We must learn to teach the same subject in different ways to different groups of students; for to the literary student, for example, language and literature are technical subjects, while to all others they are semi-technical or entirely non-technical.

3. Public schools generally must introduce vocational courses paralleling the non-technical instruction and do it honestly in ways that will really train for efficiency in occupational service.

4. More schools must follow the lead of the few in introducing short courses, night schools, and the kind of education needed by every other class contemplated in the Cooley bill except the "bound out" class, which is unAmerican.

Unless the public schools will do all this, some such scheme as the Cooley bill is inevitable, because it will be necessary.

We must all admit that the present point of view at which most public-school teachers have now arrived is comparatively recent and quite opposite to that commonly held even a quarter of a century ago. We must also admit that we are only beginning to put these new ideas into operation, and that, relatively, the work goes slowly from lack of funds and qualified teachers, even though, absolutely, it is going by leaps and bounds. We must freely admit that much of the finished product of the public schools,—largely turned out under old conditions,—is far from satisfactory in real life, a fact that has been better appreciated by the business world, which receives the students, than by teachers, who are always engaged upon a new crop and see but little of the final fruits of their own labors, and whose judgment rests mainly upon the rather artificial standards of the schools, not drawn from the experience of the world outside, but erected within as a kind of algebraic sum of convenience in teaching and ease in administration.

We must all understand that in general the world demands efficiency as the income from expensive public instruction, while commonly the parent, and too often the teacher, regards the school as somehow a means of giving the individual some sort of advantage whereby he may be freed from the hard conditions that of necessity beset the common mass of humanity. This ambition of the parent or the teacher easily communicates itself to the child, who goes job-hunting from school with the wrong attitude towards work and towards the world, which demands service and which is unwilling to accord favors unearned but is more likely to demand a handicap.

That we are caught in the midst of our own reformation we must admit, but we insist that no procedure is or can be 100 percent perfect, as advocates of the new-old plan would speedily find were it put into practice, and we insist that the public has been, and is, more blameworthy than the schools for any past delinquency in our products. *Until the individual parent is not only willing but insistent that*

his own boy and his own girl shall be educated for usefulness and not for parasitism, and until he is willing to pay for such education, the public schools cannot do their whole duty by the children or by the world they are to serve, whatever the form of organization. Our whole contention is this: Just because the world went to sleep and had bad dreams, it must not, upon awaking, proceed to smash everything that has been done during its long somnolence.

Propositions for Agreement

In a discussion involving action and far-reaching consequences it is well not only to know the ground thoroughly, but to ascertain clearly the points on which agreement may be reached. To this end the following propositions involving concessions from both sides are submitted for agreement:

I. Without vocational education of the masses, the following consequences are inevitable:

1. Each new generation assumes the burdens of the last without sufficient preparation; for general knowledge is not necessarily specific power.
2. The ordinary individual is unable to care for himself and his family as self-respecting members of society; for he is not prepared to engage successfully in the activities whereby we live.
3. The major industries, like farming and manufacturing, do not develop; for their further progress is conditioned upon the findings of science and the practice of educated men.
4. Society is not well served if its fundamental needs are inadequately or irregularly met; for all necessities, like the food supply, should be not only ample and economical but at all times certain.
5. The highest civilization does not develop; for further advance rests upon the proper development of those industries concerned with food, clothing, and shelter that inevitably absorb the most of the time, thought, and energy of man.
6. The ultimate result is the development of a great middle class existing precariously by grinding toil, a submerged and parasitic minority living hopelessly by its wits, and a small leisure class also largely parasitic,—a stratification resulting from the possession of money or other inherited advantage rather than from education and personal initiative; for the only agency of real progress is educated individual efficiency.
7. A society so stratified is undemocratic and must be governed from without, for its elements are too diverse, its interests too antagonistic, and its objects too ill-defined to permit of government by the vote of the majority.

II. Any general system of vocational education, however administered, must, to be both effective and safe, recognize and foster the following principles:

1. Vocational education in order to be useful must be really technical in subject matter and in spirit; for its object is to enable the individual to take a useful place in society with reasonable promptness, efficiency, and certainty.

2. It must be accompanied by not less than an equal amount of strictly non-technical instruction, the aim of which is to draw attention outside the man and his calling to the world in general and to the larger things of life; for society must be something more than an aggregation of technicians.

3. The ultimate object of all education is not industrial efficiency but the full development of man; for vocation is a means of living and not the purpose of existence.

4. The fullest understanding and the closest cooperation is necessary between the forces and agencies aiming at the vocational education and those aiming at the non-technical development of the child; for without this cooperation, one phase or the other of the personality will remain undeveloped, and the man be likely to become a burden upon the community if not a menace to society.

5. Under this cooperation, vocational education as such must not only proceed along lines necessary to its own purposes, but it must be allowed to inject into the school system many processes that are new and many standards that have not been heretofore recognized in education; for it assumes the principle that there is no general education that will really prepare for specific service.

6. The curriculum of the school is quite a different matter from the course of study best for the particular student; for the one is as broad as the needs of life and the capacities of the school as a whole, while the other is fitted to the needs, capacities, and desires of an individual.

7. Historically all education is technical and vocational, but we are now entering upon a period in which any subject, as chemistry, literature, or agriculture, may be vocational and therefore technical to one group but non-technical to other groups; for the influence and value of a subject is due not only to its content but to the manner in which it is presented by the teacher and the spirit and purpose with which it is pursued by the student.

8. In this way most subjects may be at one time and for one purpose vocational, and at another time and for another purpose non-technical. This means that teachers must be able and willing from now on to teach certain subjects, especially language, literature, and the sciences, somewhat differently to different groups of students, and the student must be always conscious whether he is taking a given course for technical, semi-technical, or strictly non-technical purpose.

9. Between subjects necessary to the education of the various groups, no lines of academic superiority or inferiority should be established; for who shall say whether food or water subserves the higher purpose?

10. Educational readjustments with a view to vocation are inevitable. In this process certain old-time and intrenched subjects will seemingly be demoted because not universally required, but actually every subject is to be preserved and made more useful because taught with greater discrimination as to its purpose, for we cannot as a whole afford to lose a single item of knowledge any more than can the individual afford to study everything.

11. This is all to cost more money than ever before, not only in the aggregate but in the per-capita expense; for technical education is more costly than non-technical. We shall need to husband our resources, and all waste from unnecessary duplication should be devoted to the enrichment of learning.

12. The ultimate purposes of civilization are to be attained through personal efficiency and culture and not through the complete subordination of the individual to society, which, as such, has no entity; for society is nothing but the people who compose it, and its superior claims are nothing but the highest good of the greatest number. Upon no other philosophy of life can democratic institutions endure or civilization stand under universal suffrage.

Where We Differ

While the foregoing propositions do not cover the situation, they fairly surround it and broadly outline it. If we can agree on them,—and how can we differ much?—then the only questions on which we can possibly differ are these three:

1. Do we need a new and separate system of vocational schools?
2. Can we afford such a system, financially?
3. Dare we establish such a system in America?

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I. I believe in the individual: in the child as father to the man, who is the agent of all progress.

II. I believe that society has a right to demand of every normal man, whatever his wealth, that he shall do something useful, and that instruction in that duty is one of the rights and obligations of the public school.

III. I believe also that every man has his own life to live and personality to develop, and that he has a right to instruction in things that are his own.

IV. I believe that no society can permanently govern itself unless men are firmly knit together by a common stock of universal knowledge and of sympathy with each other's burdens.

V. I believe that the highest civilization is possible only as each man develops within himself the best service and the highest ideals of which he is capable and is both free and willing to exercise all his faculties.

VI. I believe that the public school, which has possession of all the children, is the controlling agent of progress, and that its policies both reflect and establish the ideals of our times and the limits of our attainments.

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